

1-1-1992

How Valid Are U.S. Criticisms of the Japanese Patent System

Michael Todd Helfand

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Recommended Citation

Michael Todd Helfand, *How Valid Are U.S. Criticisms of the Japanese Patent System*, 15 HASTINGS COMM. & ENT. L.J. 123 (1992).
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How Valid Are U.S. Criticisms of the Japanese Patent System?

by
MICHAEL TODD HELFAND*

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* Associate, Spensley Horn Jubas & Lubitz, Los Angeles, California. J.D., Stanford Law School, 1991; B.A., The American University, 1988.

This paper is a direct outgrowth of a Japanese Patent Study Group sponsored jointly by the Stanford International Center for Law and Technology and the Northeast Asia-United States Forum on International Policy. I would like to thank John H. Barton, Director, S.I.C.L.T., and Stanford Professor of Law, James H. Raphael, Director of Research (Japan), Northeast Asia Forum, and all the participants in the study. A special thanks to our guest speakers: Ken Hattori, Esq., member of the Japanese and United States Patent Bar; James A. Sheridan, Esq., Secretary, San Francisco Patent and Trademark Law Association, and member, U.S. Bar/JPO Liaison Council; Carl Silverman, Esq., Intellectual Property Counsel, Intel Corporation; and Kazuhiko Yoshimura, Examiner, Japanese Patent Office.

The views expressed in this paper are not necessarily those of the Stanford International Center for Law and Technology, the Northeast Asia-United States Forum on International Policy, or any speaker or participant in the Japanese Patent Study Group other than the author.

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Introduction

In times of U.S. trade deficits, criticisms against trade partners alleging trade barriers and insufficient protection of intellectual property are commonly heard. Such criticisms often seem little more than rhetoric intended for domestic consumption. Yet horror stories about businesses having their technologies appropriated in foreign countries, often because of a lack of domestic protection, seem compelling. This clash of posturing and piracy is well exemplified in recent criticisms of the Japanese patent system by U.S. businesses and government.

Collectively, these criticisms paint a picture of a Japanese patent system that seeks not to protect inventions, but systematically to divest foreign patent applicants of their technology and disseminate the information throughout Japanese industry. The posturing aspect of these assertions is that they are often spoken in absolute terms, without a proper understanding of Japanese procedure or regard for legitimate differences between the domestic goals of the systems of the two countries. The piracy aspect is that some companies have faced real hardships in using the Japanese system, and found their technology in jeopardy.¹

How valid are the specific criticisms of the Japanese patent system? This article attempts to answer that question. Determinations of valid criticisms are made where possible, and light is shed on the possibilities when no one answer can be definitive. An overview of the Japanese patent system, including a comparison with U.S. Patent and Trademark Office practice, is the necessary starting point. From there, the article explores the Japanese conception of their own system. This section attempts to clarify the goals of the Japanese system and how they influence, and are influenced by, the structure and substance of patent practice. After an introduction to U.S. criticisms, the article analyzes specific aspects of the Japanese system in the context of their alleged shortcomings. The focus of this inquiry is upon criticisms of patent procedure, rights enforcement, and the competitive uses of patents. The goal is to gain a comprehensive, cross-cultural understanding of both the criticisms and their targets to determine the validity of the charges. While the validity of any criticism is necessarily a subjective determination, this article endeavors to remain as objective as possible.

I

An Overview of the Japanese Patent System

The modern-day Japanese patent system¹ is adapted from the German system. However, it has been modified "to accommodate national

1. Law No. 121 (1959), as amended [hereinafter Patent Law].

needs and desires for a simplified, low cost system which encouraged innovation through a very wide participation of its technical people in the benefits of the system."² The resulting system differs in practice, and at times in substance, from the United States patent system in a number of key ways.³ From these differences, a number of criticisms have arisen in the United States.

A. Japanese Patent Office Patent Practice

The Japanese patent system provides for both patents and utility models.⁴ Basically, a "[u]tility model is a name given to certain inventions in the mechanical field, which are described as devices or useful objects."⁵ Utility models are directed to innovations and small inventions, and have requirements that are less strict than patents and a term of protection that is five years shorter.⁶ Nevertheless, the examination procedure for obtaining a utility model approximately parallels the procedure for patents.⁷ This article focuses on procedures and substance as they relate to patents. The examination process is laid out in the accompanying flow chart.

The first step in the procedure, filing the application, highlights important differences between the United States and Japan. The United States is one of only two countries that utilizes a "first-to-invent" system⁸

2. M. Kalikow, *Comparison of United States Patent and Trademark Office, European Patent Office and Japanese Patent Office Patent Practice*, 23 INDUS. PROP. 290, 291 (1984).

The result of the accommodation may go beyond just implementation issues. At least one commentator argues that the European patent system, including the German system, actually takes a different conceptual approach than the current Japanese system; the former is said to be based on the concept of contractual rights arising from the system. Samson Helfgott, *Cultural Differences Between the U.S. and Japanese Patent Systems*, 3 WORLD INTELL. PROP. REP. (BNA) 269 (Dec. 1989), reprinted in 72 J. PAT. & TRADEMARK OFF. SOC'Y 231, 236-37 (1990).

3. For a general comparison of the practices of the U.S. Patent and Trademark Office (USPTO), European Patent Office (EPO), and Japanese Patent Office (JPO), see generally Helfgott, *supra* note 2. For a discussion of substantive differences between the U.S. and Japanese systems, see generally Donald G. Daus, *Patentable Differences: Japan and the United States*, 17 IIC 463 (1986).

4. See Law No. 123 (1959) [hereinafter Utility Model Law]. This division is not unique to Japan and can be found in the patent systems of other countries, including Germany and Spain.

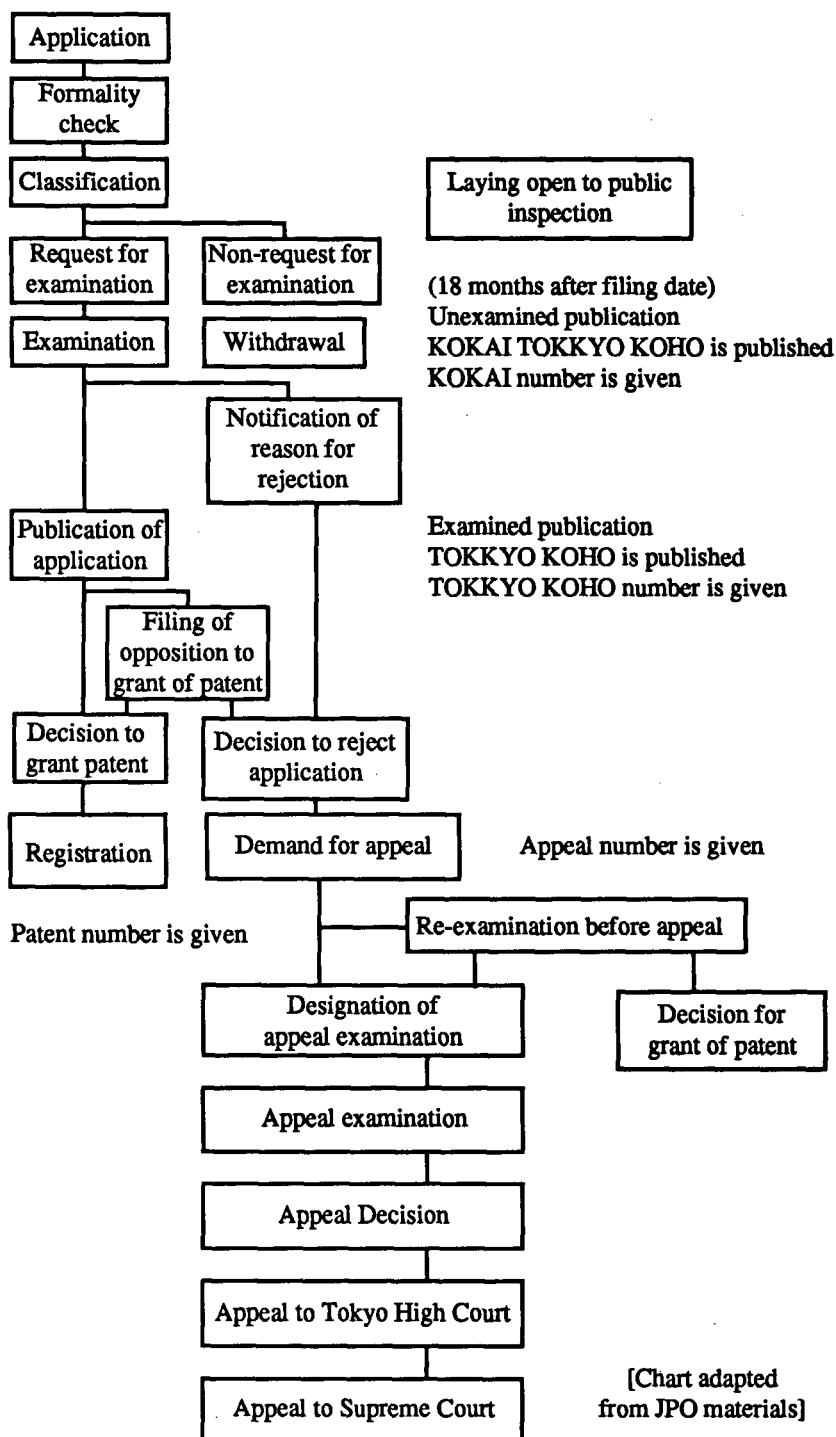
5. *Views from across the Pacific: JPOS (Japanese Patent Office Society) Talks*, 72 J. PAT. & TRADEMARK OFF. SOC'Y 1025, 1027 (1990) (Kei-ichi Sugoh, Appeal Examiner in Chief, Yasushige Hashimoto, Examiner, Yoshio Nishikawa, Examiner, Japanese Patent Office, speakers) [hereinafter *Views*].

6. *Id.*; Utility Model Law, *supra* note 4, at art. 15(1); Patent Law, *supra* note 1, at art. 67(1).

7. JAPANESE PATENT OFFICE, INDUSTRIAL PROPERTY LAWS IN JAPAN 3-7 (1985).

8. The priority claim is included within the inventor oath. 35 U.S.C. § 115 (1989).

Procedures for application



where, among other factors, the "date of invention" determines priority.⁹ Japan, like the European Patent Office, utilizes a "first-to-file" system:¹⁰ priority is determined solely by the filing date.¹¹ However, recent amendments to the domestic priority system allow an applicant in certain circumstances to claim the priority of an earlier-filed Japanese application if it is incorporated in a later-filed application.¹² The JPO also requires that all applications be filed in Japanese. In contrast, the USPTO allows the initial filing in any language, followed by a two-month period in which to submit a verified translation.¹³

Technically, U.S. practice is the same as the JPO's. The USPTO only requires *constructive* reduction to practice at the time of filing. This means that the disclosure of the invention in the patent application is sufficient to enable one skilled in the art to practice the invention.¹⁴ The inventor need not have made the invention. In contrast, *actual* reduction to practice means that the invention has been made.

In real practice it is far more common to do exactly what is done in the JPO—filing an application that provides an enabling description of the invention while the details of the invention are still being worked out and later including them in the application by amendments.¹⁵

While an application before the USPTO is automatically examined, the JPO requires that the applicant request examination.¹⁶ This request may be made at any time within seven years of the filing date.¹⁷ If no request is made within this time, the application is deemed withdrawn.¹⁸

9. Thus, if patent applications for the same invention are filed by different parties, priority is given not to the first party who filed, but to the party who can prove it was the first to invent the subject of the application. See 35 U.S.C. § 102(g) (1989).

10. Patent Law, *supra* note 1, at art. 39.

11. *Id.* Note that if the filings are simultaneous, the applicant who may continue with the process is determined by the parties themselves. If no agreement is reached, no party may obtain the patent. *Id.* at art. 39(2).

12. *Id.* at arts. 42, 43(1), 43(4), 44(2) (1985 amendments); Hidetaka Sekine & John Kakinuki, *Recent Developments in Japanese Patent Law*, 11 EUR. INTELL. PROP. REV. 235 (1989).

13. Ken Hattori, Esq., member of the Japanese and U.S. Patent Bars, Presentation to the Japanese Patent Study Group (Dec. 10, 1990).

14. 35 U.S.C. § 112 (1989).

15. Sekine & Kakinuki, *supra* note 12, at 236; Presentation of Kazuhiko Yoshimura, Examiner, Japanese Patent Office, to the Japanese Patent Study Group (Nov. 15, 1990) (memoranda on file with author). However, such amendments may "unjustly" impinge on third parties who filed applications prior to the amendments and now face potential conflicting claims. *Id.*

16. Patent Law, *supra* note 1, at art. 48-2.

17. *Id.* at art. 48-3. The EPO similarly requires that the exam be requested; however, it must be done within six months "after publication of Search Report is mentioned in *European Patent Bulletin*." Kalikow, *supra* note 2, at 294.

18. *Views*, *supra* note 5, at 1030.

The United States emphasizes secrecy of applications, publishing the patent in the official gazette only after it has been granted.¹⁹ However, the JPO employs the KOKAI system in which "[a]ll patented applications are published in the patent gazette [KOKAI KOHO] describing the content of applications [including English abstracts] 18 months after filing date . . . whether a request for examination has been filed or not."²⁰ Considered "laying-open" the application, the KOKAI publication is "deemed prior art to later filed applications in judging novelty [but not inventive step], even though the application was not laid open yet at the time when these applications filed"²¹ A non-filing party who commercially works the invention after this time may be required to compensate the applicant.²²

Upon request, the examination is begun. Novelty, inventive step, and industrial applicability—the latter two counterparts to the U.S. requirements of non-obviousness and utility, respectively—are examined.²³ An expedited examination²⁴ is provided for in cases in which a party "other than the applicant is working the invention as a business after laying open, but before the 2nd publication," provided that certain conditions are met.²⁵ However, such petitions are rarely granted. In contrast, the USPTO and EPO usually grant such requests in response to serious allegations of infringement.²⁶ Recently, the JPO has responded to U.S. and European criticisms concerning this reluctance to expedite examination by introducing, on an experimental basis, separate procedures for "accelerated examinations" and "accelerated trials."²⁷

During the examination, there are specified times to amend the application. Amendments must be "restricted to the scope of what is mentioned in the specification, claims, and drawings of the original application document."²⁸ In general, amendment opportunities are

19. 35 U.S.C. § 122 (1989) (confidential status of applications).

20. *Views*, *supra* note 5, at 1028; Japanese Patent Office materials provided by Kazuhiko Yoshimura, *supra* note 15, at 1 [hereinafter JPO Materials].

On April 12, 1988, the United States and Japan concluded an agreement permitting inventions covered by Department of Defense secrecy orders to be exempt from such laying open, as well as publication, until the secrecy order is lifted. Sekine & Kakinuki, *supra* note 12, at 238.

21. JPO Materials, *supra* note 20, at 2; Patent Law art. 29-2.

22. Patent Law, *supra* note 1, at art. 65-3.

23. *Views*, *supra* note 5, at 1030. Patentability and unity of invention standards are considered almost the same as those of the USPTO. *Id.*; see also Kalikow, *supra* note 2, at 297-98.

24. Patent Law art. 48-6.

25. Kalikow, *supra* note 2, at 295.

26. *Id.*

27. Sekine & Kakinuki, *supra* note 12, at 236.

28. JPO Materials, *supra* note 20, at 3; Patent Law, *supra* note 1, at art. 41.

much more circumscribed than under USPTO practice.²⁹ The scope of oral communication between applicant and examiner is also more restricted than in either the USPTO or EPO.³⁰

If and when there is no reason to refuse the application, the KOKOKU system is employed. The application is published for opposition in the Patent Gazette KOKOKU KOHO.³¹ This does not mean that the application is granted. Nevertheless,

[a]s a result of this examined publication, a provisional exclusive right almost equivalent to a patent right is conferred. In other words, the applicant has not only the injunction right but also the right for compensation for damages against infringement. However, where the applicant has exercised the right and afterward the patent application has been abandoned, withdrawn or invalidated . . . the applicant shall be liable to indemnify any damage caused to another party by the exercise of that right.³²

The pre-grant opposition is a major difference from the U.S. patent system.³³ For three months following the KOKOKU publication, any person may file an opposition to the granting of the patent.³⁴ "The grounds and evidence for oppositions may be supplemented within 30 days (plus 60 days for those residing in foreign countries) from the statutory period for filing oppositions."³⁵ The examiner will make a decision whether to grant an application only after ruling on all oppositions, if any are lodged.

If the application is denied, *ex parte* appeals operate similarly to the USPTO practice, although deadlines are usually shorter and the average total time of appeal is substantially longer.³⁶ There are five kinds of appeal in Japan: (1) appeal of an examiner's decision of refusal, including amendments leading to reconsideration; (2) appeal of a ruling to decline amendment; (3) appeal for invalidation of patents, similar to the U.S. court action; (4) appeal for correction, "almost equivalent to the reissue application system in the U.S."; and (5) appeal for invalidation of correction.³⁷ Final appeals may be made to the Tokyo High Court and, there-

29. Kalikow, *supra* note 2, at 294-95; Hattori, *supra* note 13.

30. Kalikow, *supra* note 2, at 295.

31. JPO Materials, *supra* note 20, at 2; JAPANESE PATENT OFFICE, *supra* note 7, at 5.

32. *Views*, *supra* note 5, at 1031.

33. The EPO also has opposition provisions. See generally Kalikow, *supra* note 2, at 296.

34. Patent Law, *supra* note 1, at art. 55(1) (amended to extend period from two to three months, effective Jan. 1, 1988).

35. JPO Materials, *supra* note 20, at 2; Patent Law, *supra* note 1, at art. 56.

36. Kalikow, *supra* note 2, at 296; Patent Law, *supra* note 1, at art. 52.

37. *Views*, *supra* note 5, at 1031-33. Previously, a trial for invalidation of a patent on grounds that it lacked novelty or that it was obvious, as evidenced by prior art, was restricted to the first five years after patent registration. A recent amendment has abolished this restricted term. Sekine & Kakinuki, *supra* note 12, at 237; Patent Law, *supra* note 1, at art. 124.

after, to the Supreme Court.³⁸ However, "it is ultimately the patent examiner who determines validity, not the court," because, even if reversed, he decides validity on remand.³⁹

Once granted, the patent's duration is the shorter of fifteen years from the date of publication (in KOKOKU) or twenty years from the date of filing.⁴⁰ Recent amendments, however, have provided for a limited extension of the term. Similar to provisions in the U.S. Patent Act,⁴¹ the Japanese systems provides that "[e]ffective 1 January 1988, if it was not possible to work the patented invention for two years or more due to a need to obtain approvals, etc., provided in laws related to ensuring safety, the patentee may apply for an extension of [the patent term]."⁴² The extension may be between two and five years.⁴³

Substantively, the scope and breadth of claims⁴⁴ deemed acceptable in Japan and the multi-claim system have differed critically from that in both the U.S. and Europe. "Until recently, as a general rule Japanese patent applications could claim only one invention."⁴⁵ Further, the "[s]everal narrowly drafted exceptions exist[ing] for multiple inventions having a common basic technical idea . . . were construed as requiring essential identity between the invention first claimed . . . and the other inventions."⁴⁶ As for scope, a 1984 report to the American Patent Law Association Committee on International and Foreign Law found:

[In applications before the USPTO and EPO,] [g]eneric claims with broad language ("means" plus function) and with a scope limited only by prior art are normally allowed even if based upon only a single fully disclosed embodiment, in mechanical/electrical cases, and a representative range of examples in chemical cases; specific claims based upon construction/features/examples disclosed are also allowed[.] [On the other hand, before the JPO,] [g]eneric claims with broad language

38. *Views*, *supra* note 5, at 1033.

39. Helfgott, *supra* note 2, at 235.

40. Patent Law, *supra* note 1, at art. 67(1).

41. 35 U.S.C. §§ 155, 155A, 156 (1989) (Patent term extension for certain patentable matter is subject to F.D.A. regulation that significantly delays the applicant's ability to commercially utilize the subject of the patent. The prime example is the extension of the term for a new drug.).

42. Sekine & Kakinuki, *supra* note 12, at 238; Patent Law art. 67(3).

43. Patent Law, *supra* note 1, at art. 67-2(1)(iii).

44. "Like a legal description of real property, each claim of a patent describes the boundaries of the patent owner's property." PAUL GOLDSTEIN, COPYRIGHT, PATENT, TRADEMARK AND RELATED STATE DOCTRINES 452 (3d ed. 1990). Compare this with the specification. "The language of the specification is the dictionary, or exegesis, for the claims. Both drawings and specification must clearly support the claim." *Id.*

45. Sekine & Kakinuki, *supra* note 12, at 237. In other words, each application could have only one independent claim, whereas the USPTO and EPO allowed multiple independent claims. Dependent claims merely detailed specific elements of the single independent claim and were not subject to separate enforcement. Kalikow, *supra* note 2, at 297.

46. Sekine & Kakinuki, *supra* note 12, at 237.

("means" plus function) [are] rarely allowed; examiners prefer specific claims based upon particular construction and features of embodiments disclosed in mechanical cases or particular examples set forth in chemical cases[.]⁴⁷

In fact, Article 36(5) of the Japanese Patent Law required that claims contain "only the indispensable constituent features of the invention," or risk invalidation for containing old or dispensable elements.⁴⁸

"Effective 1 January 1988, the requirements for joining multiple claims were substantially relaxed."⁴⁹ No longer are multiple claims merely exceptions to a "one invention rule"; instead, they are requirements for joining other inventions with the "specified invention."⁵⁰ In addition, joint inventions are no longer required to share whole or essential parts of indispensable features of the specified invention. Rather, the joint and specified inventions need share only: "(1) industrial applicability and the problem to be solved; or (2) industrial applicability and essential parts of the features indispensable to the constitution of the invention."⁵¹ Given the prevalence of literal statutory interpretation, this should send a clear message of greater acceptance of multiple claims.⁵²

B. A Comparison of Relevant Statistics

The sheer number of patent and utility model applications received each year by the JPO is staggering. Increasing at a rate of 20,000 applications per year until 1987, the combined applications for the years 1987-89 were 542,709, 511,073, and 504,509, respectively.⁵³ Focusing just on patent applications, there were 339,399 in 1988⁵⁴ and 357,464 in 1989.⁵⁵ By comparison, the USPTO received 161,660 applications in 1989.⁵⁶

Given the need to request examination and the length of examination process in the JPO, it is not easy to determine accurately the aggregate progression of a given year's applications. With that caveat, in 1988 there were 100,111 requests for patent examinations.⁵⁷ The JPO granted

47. Kalikow, *supra* note 2, at 298.

48. Daus, *supra* note 3, at 478.

49. Sekine & Kakinuki, *supra* note 12, at 238; Patent Law, *supra* note 1, at art. 37.

50. Sekine & Kakinuki, *supra* note 12, at 238; Patent Law, *supra* note 1, at art. 37.

51. Sekine & Kakinuki, *supra* note 12, at 238; Patent Law, *supra* note 1, at arts. 37(i), (ii).

52. Sekine & Kakinuki, *supra* note 12, at 238.

53. Approved Minutes, U.S. Bar/JPO Liaison Council Meeting with JPO Representatives, Westin Hotel, Chicago, Ill. (Aug. 6, 1990) (Attachment IV, materials supplied by the Japanese Patent Office) [hereinafter Approved Minutes].

54. JPO Materials, *supra* note 20, at 7; see also *Views*, *supra* note 5, at 1027.

55. *Industrial Property Statistics for 1989 (Publication A)*, 29 INDUS. PROP., Annex, Table 1, at 4 (1990).

56. *Id.* at 7.

57. JPO Materials, *supra* note 20, at 7.

50,542 applications and refused 44,073.⁵⁸ In 1989, the JPO granted 63,301 patents, while the U.S. granted 95,539.⁵⁹ While that yields a grant/application ratio of 17.7% in Japan and 59.1% in the United States, the grant/examination requests ratio for Japan, using 1988 data, is actually 50.5%.⁶⁰

The number of applications becomes even more pronounced when one factors in the number of patent examiners. For 1989, the "number of [JPO] examiners and appeal examiners in patent, utility model, and design sectors [was] about 1,200 . . ."⁶¹ Focusing on just the patent sector, the numbers are approximately 800 active examiners, and 260 appeal examiners.⁶² In comparison, the USPTO employs 1,800 patent examiners. Thus, each examiner in the USPTO faces a quota of roughly 150 applications, while examiners in the JPO face a quota of roughly 400 applications.⁶³

An interesting comparison is the growth of private research and development spending in Japan to the increase in patent applications. Data from 1987 show an upwardly-sloping curve for such spending that approximately parallels the curve for increased applications.⁶⁴ Finally, a comparison of the ratio of government and private sector research and development expenditures to the number of patents granted, again using 1987 data, is \$221,000 for Japan and \$1,710,000 for the United States.⁶⁵

II

Japanese Conceptions of the Japanese Patent System

It is important to understand that the goal of the Japanese patent system differs fundamentally from that of the United States. In general,

58. *Id.* The number of applications granted plus the number of applications refused does not equal the number of examinations requested because the decision to grant or refuse an application may not occur in the same year as the examination request.

59. *Industrial Property Statistics for 1989 (Publication A)*, *supra* note 55, at 4, 7.

60. However, given the narrow scope of Japanese patent applications, *see supra* text accompanying notes 44-52 and *see infra* text accompanying notes 79-82, the rejection rate in the United States may differ substantively from the rejection rate in Japan. For example, a U.S. application can be denied as to some claims, and granted as to those claims remaining. Yoshimura, *supra* note 15.

61. *Views*, *supra* note 5, at 1041.

62. Yoshimura, *supra* note 15.

63. Hattori, *supra* note 13.

64. JPO Materials, *supra* note 20, at 6.

65. Professor John Barton computed the ratio of national research and development expenditures to patent grants using government statistics of R&D as a percentage of GNP, obtained from U.S. BUREAU OF THE CENSUS, 1990 STATISTICAL ABSTRACTS OF THE UNITED STATES 585 (110th ed. 1990); JPO Materials, *supra* note 20, at 6; and statistics of patent grants, *Industrial Property Statistics for 1989 (Publication A)*, *supra* note 55, at 4, 7.

the U.S. legal system concentrates upon individual rights.⁶⁶ The patent system is similarly focused, its goal to protect the inventions and discoveries of *individuals*.⁶⁷ The individual ultimately controls the disclosure of his or her inventions, with the incentive for disclosure coming from the granting of broad exclusive rights.⁶⁸

The Japanese legal system, on the other hand, developed without the concept of individual rights.⁶⁹ Faced with historical pressures from larger Western powers, the Japanese came to believe it necessary that their legal system promote the survival of the Japanese nation and society as a whole.⁷⁰ Thus, the goal of the patent system became to share scientific and technical information, to teach about new innovations, and to promote the development of Japanese industry.⁷¹ Given this goal, one practitioner has expressed the view that Japan probably could not "afford" a system that promotes protection of individual rights over sharing.⁷²

These cultural differences are reflected in a number of aspects of the procedures and substance of the Japanese patent system.⁷³ The first-to-file system is primary among these. This system favors those who are expeditious in utilizing the system at the expense of the individual inventor who invents first but files "last."⁷⁴ The incentive to file quickly⁷⁵

66. See, e.g., U.S. CONST. amends. I-X (establishing the importance of the rights of individuals).

67. Helfgott, *supra* note 2, at 232; Donald M. Spero, *Patent Protection or Piracy—A CEO Views Japan*, HARV. BUS. REV. 58 (Sept.-Oct. 1990).

U.S. patent law clearly embraces the individual. While inventors are always free to assign their rights to a business or other economic concern, U.S. patent law does not permit such an entity to apply for the patent. Rather, the law requires that the "flesh and blood" inventor(s) be the applicants. Helfgott, *supra* note 2, at 233; see also 35 U.S.C. § 111 (1990).

68. The U.S. system follows a "contractual approach" in which disclosure is conditioned on granting the application and the exclusive rights; if the application is rejected or if the applicant is not satisfied with the scope of his or her claims and does not accept the grant, then there is no requirement for disclosure. Helfgott, *supra* note 2, at 232.

69. Yasuhei Taniguchi, Japanese legal scholar and Visiting Professor of Law at Stanford Univ., Presentation to the Japanese Legal Systems class, Stanford Law School (Mar. 5, 1991).

70. Hattori, *supra* note 13.

71. Patent Law, *supra* note 1, at art. 1; Helfgott, *supra* note 2, at 234; JPO Materials, *supra* note 20, at 5; Spero, *supra* note 67, at 58 (The Japanese system "serves a larger, national goal: the rapid spread of technological know-how among competitors in a manner that avoids litigation, encourages broad-scale cooperation, and promotes Japanese industry as a whole.").

72. Hattori, *supra* note 13.

73. This article does not claim that these cultural differences are the cause of the particulars of the Japanese system. Rather, it is one factor that must be considered when viewing the development and implementation of the system.

74. Cf. Helfgott, *supra* note 2, at 233 (U.S. first-to-invent system promotes the patentee over speed of utilization of the patent system).

75. "[T]he Japanese first-to-file system does not require a reduction to practice prior to filing and therefore not many applicants conduct studies of the feasibility of commercializing

allows the latest innovations to be made public, through the KOKAI system, at the earliest possible date. Thus, sharing of the latest information throughout industry is promoted.

Together, the first-to-file and KOKAI systems operate as intrinsic inducements to the increase of patent applications.⁷⁶ It is obvious that the KOKAI system⁷⁷ and the deferred examination are at the heart of the sharing of information. Laying open after eighteen months, deferring examination for up to seven years, and delays in patent prosecution if and when the examination is requested all combine to make innovations available to industry long before exclusive rights are granted.

While industry does not generally infringe inventions after their publication, studying of the publication permits industry to make slight modifications of the published invention, to superinvent, to come up with improvements and even file use applications, and generally to further stimulate innovation in a direction of avoiding infringement.⁷⁸

In this way, publication of applications further serves as a "warning" to others in the industry; competitors know what the applicant is working on and can modify their own investments so as to avoid infringement down the road.⁷⁹ It has been suggested that the JPO has chosen to interpret claims as narrowly as possible, with an eye toward avoiding infringement and litigation, often limiting applicants to specific examples, so as to minimize the effect of exclusive rights.⁸⁰ This may also be one reason why Japanese industry has historically chosen to file narrowly drawn applications.⁸¹ Rather than seek broad protection to prevent others from competing in the technology generally, applicants seek only to protect the specific embodiments which they plan on practicing.⁸²

These goals, in the context of a system that favors public benefits over individual patent rights, may explain why the doctrine of equivalents does not really exist in Japan.⁸³ The Japanese courts see the public's reliance on the claim language as a limiting factor, and give them

their inventions prior to demanding examinations, if at all." Sekine & Kakinuki, *supra* note 12, at 236; Hattori, *supra* note 13 (a "paper invention" is permissible).

76. JPO Materials, *supra* note 20, at 5.

77. See *supra* text accompanying notes 20 and 21.

78. Helfgott, *supra* note 2, at 234.

79. Hattori, *supra* note 13.

80. Helfgott, *supra* note 2, at 234-35; see also Spero, *supra* note 67, at 66.

81. Despite the new multiple claim system, Japanese applicants continue to file in the traditional style. Approved Minutes, *supra* note 53, at 5 (comment of John B. Pegram, Esq., New York Patent, Trademark & Copyright Law Assoc.).

82. Helfgott, *supra* note 2, at 235.

83. Hattori, *supra* note 13. The doctrine of equivalents is an equitable doctrine in which patent holders can prevent the patenting or use of a device or process which, although not identical to their own patents, performs substantially the same function in substantially the same way to obtain the same result. *Machine Co. v. Murphy*, 97 U.S. 120, 125 (1877). See also *Graver Tank & Mfg. Co. v. Linde Air Prods.*, 339 U.S. 605, 608 (1950); *Pennwalt Corp. v.*

priority over the interests of the patentee.⁸⁴ In effect, the courts often limit claims to the embodiment shown in the specifications. The reluctance to protect against infringement by equivalents "is based on the view that legal certainty should prevail over the patentee's interest," and "is the logical result of their court's lack of jurisdiction to hold the claim invalid."⁸⁵

There is another major factor that can explain the JPO's limited approach to patent claims, as well as the number of patents. Following an incremental style of innovation, the Japanese view "[s]mall inventions and innovations which have the possibilities of improving quality and productivity of goods" as worthy of patents,⁸⁶ or at least applications for the purpose of publication. In other words, the Japanese do not focus only on major scientific breakthroughs, but work on bringing about incremental improvements and then turning these into products.⁸⁷ Such an incremental approach lends itself naturally to applications with narrow claims.⁸⁸ In this fashion, a Japanese company claims its particular embodiment—its specific innovation—without having exclusive rights over all related technology. This approach serves the overall goals of adding to the scientific literature, rather than seeking monopolies, and of promoting improvements in industry.⁸⁹ As a direct result, the greater

Durand-Wayland, Inc., 833 F.2d 931, 934 (Fed. Cir. 1987). *But see* London v. Carson Pirie Scott & Co., 946 F.2d 1534, 1538 (Fed. Cir. 1991) (doctrine is the exception, not the rule).

84. Daus, *supra* note 3, at 476-77; Patent Law, *supra* note 1, at art. 70. In interpreting the scope of a claim, neither file wrapper estoppel nor prosecution history estoppel are utilized, at least to the same extent as in the United States. It is explained that this is due to fairness concerns, because histories are not published. In order to get the file wrapper, one needs to go to Tokyo, an undertaking believed to be too expensive and time-consuming for those not close to Tokyo. Hattori, *supra* note 13.

85. Daus, *supra* note 3, at 477.

86. JPO Materials, *supra* note 20, at 5. *See supra* text accompanying note 71; *see generally* Neil Gross, *A Wave of Ideas, Drop by Drop*, BUS. WK. 22 (June 16, 1989). Patent attorney Ken Hattori stresses that in Japan, the applicant must show "meritorious effect" of the subject matter of the application to get a patent. He notes that the Japanese are technology-oriented, with patent examiners more interested in the technological "guts" of an application than its ability to instruct others in how to work the patent. Hattori, *supra* note 13. This, however, is not at odds with the incremental step approach. At issue in the intersection of these philosophies is the question: What is "meritorious effect"? It seems clear that in Japan, incremental innovations that improve quality or productivity are meritorious.

However, Mr. Hattori believes a problem with the Japanese patent system is its failure to take into account secondary considerations. As he explains it, in a U.S. filing, if the subject matter does not offer a technical advantage, but nevertheless "increases speed, lower costs, [or] deals with a long term problem," this is often enough for the patent to issue. *Id.* However, his view is that this is not the case before the JPO, which will require a technical advantage. *Id.*

87. *See* Otis Port, *Back to Basics*, BUS. WK. 14 (June 16, 1989).

88. James A. Sheridan, Esq., Secretary, San Francisco Patent and Trademark Law Association, and member, U.S. Bar/JPO Liaison Council, Presentation to the Japanese Patent Study Group (Oct. 18, 1990).

89. *Id.*

frequency of incremental changes, compared to major discoveries, coupled with the urge to share, leads to a greater number of filings.

Related to this is the Japanese esteem for patents, a view which helps further explain the number of patent applications filed. At a sociocultural level, patents serve as credentials.⁹⁰ One explanation may be that because the incremental style of innovation does not lend itself to media coverage⁹¹ that may otherwise bring acclaim, sheer numbers of patents serve as a mark of creativity.

"Patents as credentials" has a direct effect on business, where they are viewed as major barometers of enterprise activities.⁹² Businesses encourage the filing of applications, being able to use the sheer number of their filings as propaganda.⁹³ For the employee, the number of applications produced can be an important factor in moving up in the company.⁹⁴ This has a "double strength" effect on the number of filings: first, there is the general encouragement to file; second, having researchers and engineers directly file applications leads to many applications for "ideas," and little incentive to self-screen applications.⁹⁵

Finally, and closely related, are the business uses of applications and granted patents. As mentioned earlier, applications are used defensively to avoid problems of infringement, wasteful investment, and, potentially, litigation.⁹⁶ In fact, a majority of applications, both patent and utility model, are left unexamined—their main purpose is "to show others what a particular company is doing"⁹⁷

Patents are also used "offensively." This is especially effective in the Japanese system which favors cross-licensing over litigation.⁹⁸ In this context, patent numbers give a company bargaining power. First, for example, if Company A holds a patent for a basic technology, Company B may seek to improve the technology and gain power by receiving its

90. *Id.*

91. "Such piecemeal advances rarely get heralded in the press, so the whole process remains invisible to most people. . . . Only other engineers appreciate the creativity behind such gradual progress." Gross, *supra* note 86, at 22.

92. JPO Materials, *supra* note 20, at 5; Yoshimura, *supra* note 15.

93. Yoshimura, *supra* note 15.

94. *Id.*

95. Sheridan, *supra* note 88. See also Hattori, *supra* note 13 (U.S. specifications are done by lawyers, and with an eye toward enablement. In Japan, applications are often done by engineers who "use words rather than sentences," and emphasize the technical benefits rather than enablement).

96. See *supra* notes 78-80, and accompanying text; Yoshimura, *supra* note 15.

97. Helfgott, *supra* note 2, at 235.

98. Spero, *supra* note 67, at 60, 64. A speaker at the Study Group emphasized the role of patent numbers in the context of cross-licensing negotiations. Carl Silverman, Esq., Intellectual Property Counsel, Intel Corporation, Presentation to the Japanese Patent Study Group (Nov. 8, 1990).

own patents on the incremental innovations. Therefore, the improvements encircle the basic technology, and B is able to effect a trade off of its improvements for A's basic technology.⁹⁹ Second, the sheer number of patents can be used as power to encourage others to cross-license whole "libraries" of patents. In other words, Company A may want some key technologies of B, and offer its entire library of patents, or key patents, as the payment; hence, the more patents A has, the better the deal for B, the better chance A will have technology wanted by B, and/or the more patents A can seek from B. Third, the more patents a company has, the greater a fee it can collect when negotiating a cross-license. For example, whether or not Company B wants to use all patents in Company A's library, the more it has access to A's patents, the more A can be expected to negotiate for a larger fee.

III

An Introduction to U.S. Criticisms and Their Analysis

As might be expected, criticisms of the Japanese system frequently arise where its procedures and substance seek to support goals that differ from those of the U.S. system. However, it is simplistic to say that cultural differences are the sole cause. First, a number of criticisms address the implementation and use or abuse of procedures and substance that do not necessarily promote any stated societal goal. In addition, where cultural differences are implicated, it may be impossible to say if the difference shaped the system, or arose because of the system.

The following three sections of this article identify criticisms often heard from U.S. businesses and government. For each criticism, the applicable structural and cultural influences are highlighted in an attempt to clarify any "front-end" misunderstandings. The criticism is then explored to better understand whether it is based on a misunderstanding, an unfair or inequitable practice, or simply a necessary or "acceptable" structural or cultural difference in approach. In this context, recent efforts by the JPO to address various criticisms are detailed. Also, an attempt is made to discover where problems are based, not so much on differences in the nationality of the systems, but on the size of the applicant's business. While the validity of some criticisms may be definitively addressed, it is impossible to do so with others, especially where the issue comes down simply to differences in goals of the patent system.

99. Yoshimura, *supra* note 15. This is also referred to as "patent flooding," and is a major U.S. criticism that is discussed below. See generally Spero, *supra* note 67.

Finally, it must also be recognized that there is no universal agreement among U.S. critics that the Japanese system does, in fact, present a problem for U.S. business. In 1988, for example,

Nels T. Lippert, a partner in the law firm of Fitzpatrick, Cella, Harper and Scinto (New York City), note[d] that a number of U.S. companies [were] putting together a statement that they have no problems with the Japanese patent system. "I haven't had any," he says, in a practice that covers chemicals, pharmaceuticals and some biotechnology patents for both U.S. and Japanese clients.¹⁰⁰

In this vein, there is a credible argument to be made that most, if not all, problems encountered come from a simple failure to gain an understanding of the Japanese system, and how it differs from USPTO practice. A practitioner has opined that the "problems Americans have with Japan's patent system . . . are 'largely of their own making,' by failing to adapt to Japan's ways."¹⁰¹ At the least, the majority of the identified problems are faced equally by Japanese nationals; thus, it is not a question of an inherently discriminatory system, at least with regard to nationality of the applicant.¹⁰²

IV

Getting Behind U.S. Criticisms of Japanese Procedure

A number of criticisms arise under the rubric of procedure. In this section, criticisms of the following aspects of the JPO practice are analyzed: costs of using the system; overload of, and delays in using, the system as a whole; the first-to-file process; laying open through the KOKAI system; claims limitation; and the availability of the pre-grant opposition.

A. Costs of Using the System—An Issue of Language

There has been some discussion of the expense of using the Japanese patent system. However, in terms of filing and other fees, the costs are

100. Joseph F. Dunphy, *Japan's Patent System Comes Under Fire*, CHEM. WK. (June 27, 1988) at 26-27.

101. *Id.* (comment of Harold C. Wegner, Esq., of Wegner and Bretschneider, Washington, D.C.).

102. For example, procedures such as first-to-file, laying open, and oppositions apply to all applications (the latter applies if examination is requested). If discrimination does exist, it may be in a system that favors the whole over an individual, and perhaps large companies over small. See Spero, *supra* note 67, at 58.

On the other hand, the Japanese can point to "discrimination" in the U.S. system, at least to the degree that the first-to-invent system impairs the ability of a foreigner to claim that he or she was the first inventor. JPO Materials, *supra* note 20, at 4. See 35 U.S.C. § 104 (1988).

actually low¹⁰³—part of the incentive to encourage filings. The real issue arises in the context of the requirement that applications must be in Japanese at the time of filing.

A large part of the expense of filing in Japan, perhaps even half the cost, comes from the need to translate the application into Japanese.¹⁰⁴ While it is true that the USPTO allows filing in any language, it too requires a verified translation within two months of filing.¹⁰⁵ Thus, except for a matter of timing, both the USPTO and JPO require a domestic language application.

One cannot seriously criticize a country for requiring filings in the language understood by its examiners. One may ask, however, why the original language text is not submitted with the translation (for reference in case of translation errors), or why a two-month translation period is not employed. On the U.S. side, it can first be pointed out that this system has been employed and works. Second, because errors cannot be corrected once filed with the JPO, some would prefer to file in a foreign language and translate after prosecution, or at least be able to file in a foreign language for purposes of priority.¹⁰⁶ One U.S.-based argument is that the U.S. approach would avoid losing rights and having applications invalidated based on easily corrected translation errors.¹⁰⁷

On the other hand, the JPO view is that the first-to-file system makes the checking of the English text content impossible.¹⁰⁸ The time delay is seen as not changing what is perceived as the real problem—poor U.S. translations.¹⁰⁹

The language issue thus has another cost. This is the cost associated with allocating insufficient time to the translation which results in a faulty application. The JPO has stated that it suffers from poor translations, often when translations are requested on a rush basis.¹¹⁰ This can create havoc for the Japanese examiners trying to understand what is being claimed and the specification. One study noted that the JPO often

103. Yoshimura, *supra* note 15. Effective January 1, 1988, revisions in the fee schedule were implemented which resulted "in a higher registration fee but substantial reductions in the fees for the first claim and any additional claims." Sekine & Kakinuki, *supra* note 12, at 237.

104. Silverman, *supra* note 98; Sheridan, *supra* note 88.

105. See *supra* text accompanying note 13.

106. Sheridan, *supra* note 88.

107. See Memorandum from William S. Thompson, President, American Intellectual Property Law Association, to members of AIPLA regarding harmonization of patent laws (on file with Hastings Comm/Ent Law Journal) [hereinafter AIPLA letter].

108. Approved Minutes, *supra* note 53, at 4 (comments of Fumitake Yoshida, Special Advisor & Former Commissioner, Japanese Patent Office) (on file with Hastings Comm/Ent Law Journal).

109. *Id.* at 4.

110. *Id.* at 3-4.

tells applicants that disclosure is insufficient to support claims for being "not understandable," a rarity with the USPTO and EPO. This may be due to translation problems.¹¹¹ Ken Hattori, a member of the Japanese patent bar and the first Japanese national to qualify as a U.S. patent attorney, believes that eighty percent of the problems U.S. applicants face before the JPO is due to translation: "Language is the biggest problem because patent is a game of language. Even a small mistranslation can create big problems."¹¹² U.S. applicants run into problems because they usually send English-text applications directly to Japanese law firms to be filed.¹¹³ This decreases the applicant's understanding of the translation, and cuts out an opportunity to get a better understanding of the Japanese system. And, as a result, the applicant faces greater difficulty in communicating directly with the translators, foreign counsel, the JPO, and so forth.¹¹⁴ A U.S. business executive admonishes:

A straight translation is never perfect, and in any event, it is unlikely to address adequately the rules and narrow interpretations of the Japanese patent system. In a dispute, the Japanese version is the ruling document—translation errors and all. If you must file a patent directly translated from English, first have the Japanese text retranslated into English by an independent, professional translator. This is a critical opportunity to improve the Japanese filing.¹¹⁵

On the other side, the Japanese have few translation problems when dealing with the USPTO. First, Japanese companies devote the time, economic, and personnel resources necessary to obtain a better understanding of foreign patent systems and language.¹¹⁶ Second, Japanese companies send only a very few of their applications directly to a U.S. law firm for filing, in an approach diametrically opposed to that of U.S. companies. Instead, they first send the applications to a Japanese law firm and have them translated, and then review the translation before sending them to the United States. In this way they can understand what is written in English rather than waiting to amend it at a later date.¹¹⁷ These experiences suggest that the majority of translation problems faced by U.S. applicants in Japan are ultimately caused by the failure of U.S. applicants to adequately appreciate the importance of translation. It is quite possible that U.S. applicants misunderstand the interaction between translation and the substantive and procedural rules of the Japanese system. Alternatively, the differences between Japanese and the European

111. Kalikow, *supra* note 2, at 298.

112. Hattori, *supra* note 13.

113. *Id.*

114. *Id.*

115. Spero, *supra* note 67, at 65.

116. Hattori, *supra* note 13.

117. *Id.*

languages as accepted in the EPO are underestimated. On a more fundamental level, such problems might stem from a failure to gain an understanding of how to use the Japanese patent system effectively, or at least a failure to take advantage of opportunities to gain a better understanding of that system.

However, it is not possible to determine whether a post-filing translation period, or some type of "liberalized" correction system, should be implemented in the JPO. Both the USPTO and JPO have sound arguments for their systems. The United States can argue that it is not equitable to defeat an application because of correctable error—and allow such errors to be changed as a matter of course. On the other hand, the Japanese may see this system as failing to encourage greater care in translations, as adding to delays in prosecuting the patent, and as possibly allowing abuse through translation corrections which operate as claim amendments.

B. JPO Overload and Time Delays

The JPO has often been criticized for the sheer overload it suffers and the delays this causes in processing applications.¹¹⁸ The criticism is likely compounded because of the laying open process. Laying open coupled with delays means that the applicant's technology is made known publicly for a significant period of time while the applicant has only the potential right to compensation for unauthorized uses.¹¹⁹ The first-to-file system, which ties priority to filing dates, is also a factor. Where the application is denied, or additional materials are requested that require refiling, the applicant will lose its priority date. In these situations, the longer the application is laid open before the applicant learns of the need to refile, the greater the chance that the applicant might lose its rights altogether.

The United States has an approximately eighteen-month review period, although the period is longer for some technologies.¹²⁰ The JPO, in response to a U.S. request, is attempting to regain the 1981 average of 24 months within the next five years.¹²¹ However, conversion to a paperless

118. See Dunphy, *supra* note 100, at 26-27; Approved Minutes, *supra* note 53, at 1-2; see generally Harold Brown, *Competitiveness, Technology and U.S.-Japan Relations*, WASH. Q., Summer 1990, at 85.

119. Patent Law, *supra* note 1, at art. 65.

120. Sheridan, *supra* note 88; Approved Minutes, *supra* note 53, at 2. Note that the USPTO uses a different measuring process than the JPO or EPO. *Id.*

121. Approved Minutes, *supra* note 53, at 2. For clarification, note that "Mr. Helfgott suggested that the [Government of Japan's] goal is, in effect, one of an average filing-to-grant period of 24 months plus a time for pre-grant opposition." *Id.* This is in comparison with a period until ultimate grant. *Id.* Some have criticized that the period is even longer, along the lines of four to six years. Spero, *supra* note 67, at 66.

program has temporarily driven the average examination period in Japan to thirty-five months. For a final comparison, the EPO average is thirty months,¹²² although it does eliminate the need to undergo multiple national examinations.¹²³

Obviously, the limited number of examiners and the sheer number of applications are major factors in these delays. The problem is compounded by "a rising level of technological sophistication and complexity and [the] larger volume of data for examination [that] is being accumulated."¹²⁴ A USPTO Commissioner has "attributed the high number of Japanese patent filings and the tremendous backlog of pending applications" to the recently-amended practice of permitting only one invention to be claimed per application.¹²⁵

1. Comprehensive Measures to Improve Overload and Delays

The prospect of increasing application numbers and examination delays during the 1970s originally led the Japanese to adopt the laying open and request for exam system in 1970.¹²⁶ At the same time, the United States opted not to adopt these systems but to increase the number of its examiners.¹²⁷ As it now appears, the 1970 changes were not able to meet the prospects in the long term—perhaps because the phenomenal growth of the Japanese market was not fully anticipated at the time.

The JPO has undertaken a number of comprehensive measures to deal with the delay problem:

a. Increase the number of patent examiners in the JPO

The problem with increasing the numbers of examiners is two-fold. First, examiners are considered public officials, not employees, and any plans to increase the number of examiners must conform with administrative reform policies.¹²⁸ Second, as officials, qualified examiners must pass a national exam held by the National Personnel Authority. In 1988, the pass rate of qualified candidates was only six percent.¹²⁹ Additionally, after the test, examiners must be trained. They progress from assis-

122. Approved Minutes, *supra* note 53, at 2.

123. Kalikow, *supra* note 2, at 291.

124. JPO Materials, *supra* note 20, at 3.

125. Sekine & Kakinuki, *supra* note 12, at 236 (citing 36 PAT., TRADEMARK & COPYRIGHT J. (BNA) 239 (1988)).

126. Views, *supra* note 5, at 1035-36.

127. *Id.* at 1036.

128. Approved Minutes, *supra* note 53, Attachment IV, at 1; Hattori, *supra* note 13.

129. Views, *supra* note 5, at 1040 (Yasushige Hashimoto, speaking).

tant examiner to primary examiner through four years of training and work experience.¹³⁰

While the number of examiners has been restricted in accord with the Seventh Retrenchment Program, which began in 1987, "the Japanese Government regarded delays in examining patent applications to be an issue of great urgency."¹³¹ The Government therefore authorized increasing the "number of examiners by thirty in fiscal 1989 for the first time in nine years, [followed by an] additional increase of thirty examiners in fiscal 1990."¹³² The JPO has promised to continue this increase.¹³³

However, doubts have been expressed that the reason the numbers have been kept low is solely because of attempts to restrict government employment or the difficulty in getting candidates. Rather, it has been alleged that MITI,¹³⁴ to which the JPO reports,¹³⁵ has a "notorious policy of providing an inadequate number of patent examiners."¹³⁶ Ostensibly, the policy is to maintain the long application pendency period so as to allow time for competitors—presumably Japanese companies—to study the technology.¹³⁷

b. Employment of experts to assist examiners

Since fiscal 1990, former JPO examiners with specialized knowledge of particular technologies, as well as examination experience, have been employed to assist in examinations.¹³⁸

c. Paperless Project

Beginning in 1984, the "goal of the Paperless Project is the construction of the total system for computerizing all procedures from filing applications, through examination, up through grant of right."¹³⁹ Two ways in which this should speed up the process and improve the quality of exams regard searching the prior art. First, the JPO is developing an F-term retrieval system, a database retrieval system which allows for searching only the appropriate prior art more efficiently.¹⁴⁰ Using this system, examiners are able to search all files and analyze all editions of KOKAI TOKKYO KOHO and KOKOKU KOHO through the use of

130. *Id.*

131. Approved Minutes, *supra* note 53, Attachment IV, at 1.

132. *Id.*

133. *Id.*

134. Japan's Ministry of International Trade and Industry.

135. Dunphy, *supra* note 100, at 27.

136. Spero, *supra* note 67, at 66.

137. *Id.*

138. Approved Minutes, *supra* note 53, Attachment IV, at 1.

139. *Views*, *supra* note 5, at 1037.

140. Approved Minutes, *supra* note 53, Attachment IV, at 2.

key words and search formulae.¹⁴¹ Second, the JPO is developing an industrial property information service system that will better enable applicants to search prior art before filing.¹⁴²

d. Contracting with a specialized outside agency for prior art searches

The development of the F-term retrieval system, which employs a standard format, has allowed for contracting with outside sources for searches.¹⁴³ For example, 10,244 such preliminary searches were conducted in fiscal 1989, 20,000 were budgeted for fiscal 1990, and the target for fiscal 1993 is 100,000.¹⁴⁴

Also, effective September 1985, "Japan's International Applications Law was amended to permit the use of international searches . . . carried out by an International Searching Authority other than the [JPO]."¹⁴⁵ Thus, "in the case of international applications under the [Patent Cooperation Treaty], the understaffed examining departments of the [JPO] will now be able to utilize reports on prior art searches carried out by the prestigious [EPO]."¹⁴⁶

e. Asking for stricter screening of applications and requests for examinations

This article has previously explored the influences that promote patent filings.¹⁴⁷ To counter these incentives, the JPO has requested major companies to begin screening applications and examination requests.¹⁴⁸ In effect, the request is to change patent management from quantity-focused to quality-focused.¹⁴⁹ It has been reported that since the campaign began in 1987, the number of total patent and utility model applications has fallen for the first time in seventeen years.¹⁵⁰

141. Yoshimura, *supra* note 15.

142. Note that applications filed with the USPTO must reveal all relevant prior art, or face patent denial. Spero, *supra* note 67, at 66. While the JPO requires such disclosure, there are no penalties for failure to do so. Makiko Ogihara, *Mitsubishi-Fusion Dispute on Lamp Patent May Turn to Global Showdown on Standards*, JAPAN ECON. J., Aug. 27, 1988, at 1 (chart comparing U.S. and Japanese systems).

143. Approved Minutes, *supra* note 53, Attachment IV, at 1.

144. *Id.*

145. Sekine & Kakinuki, *supra* note 12, at 236.

146. *Id.*

147. See *supra* text accompanying notes 75-76, 90-99.

148. Approved Minutes, *supra* note 53, Attachment IV, at 3.

149. JPO Materials, *supra* note 20, at 3. A speaker before the Study Group pointed out that the quantity of patent applications caused great difficulty for Japanese companies in trying to decide which patents to file abroad and which patents to negotiate. Silverman, *supra* note 98.

150. Approved Minutes, *supra* note 53, Attachment IV, at 3. See *supra* text accompanying note 53.

f. Utilization of publications for disclosure of technologies

In an attempt to channel the cultural underpinnings of the patent system, the JPO "has requested industrial sectors not to file patent applications for technologies whose need for patent rights are thought to be relatively weak, and instead to make those technologies public by disclosing them in publications."¹⁵¹ The Japanese Institute of Invention and Innovation's publication KOKAI-GIHO is being made more attractive for this purpose.¹⁵²

g. Accelerated examination system

This system, mentioned above,¹⁵³ is felt to give some advantages to foreign applicants. The primary advantage is the use of non-JPO prior art searches, without additional charge.¹⁵⁴ However, its use is mainly for subject matter that is being practiced before the grant of rights, and the resources allocated to it are limited.¹⁵⁵

2. *Structural Delay—Request for Exam*

The criticism of the request for exam system, in which applicants can have up to seven years to request an exam, is that patent rights are not clarified for a number of years, thereby impacting marketing and investment decisions.¹⁵⁶ However, two aspects of this criticism denigrate its validity.

First, the causes of the criticism are not really a direct result of the request system, per se. For example, given the applicant's ability to request examination, rights yet to be clarified are more closely related to delays in the examination process—whether or not the exam starts automatically. And, if the issue is length of time during which competitors have access to an application before rights are granted, then this is really a criticism of the KOKAI system rather than of the request system.

Second, U.S. companies can, and do, take advantage of the option offered by the first-to-file and exam request system by filing as they go along to gain priority, and then deciding later which application to drop and which to pursue.¹⁵⁷ Thus, meeting the criticism requires companies

151. *Id.*

152. *Id.*

153. See *supra* text accompanying note 27.

154. Approved Minutes, *supra* note 53, Attachment IV, at 3.

155. Sekine & Kakinuki, *supra* note 12, at 236.

156. AIPLA letter, *supra* note 107, at 3. While the EPO also has a delay system, it requires that the exam be requested within six months after laying open/publication. Kalikow, *supra* note 2, at 294.

157. Sheridan, *supra* note 88.

to carefully plan out their filing strategy. First, they should file early,¹⁵⁸ and request the exam as soon as possible if they believe the filed subject matter will be utilized. Second, their "goal should be to get patents issued (if possible) before building significant sales and making the market value obvious to potential competitors."¹⁵⁹

This area might in fact represent a big versus small company problem, rather than a domestic versus foreign company problem. Big companies can file as they go along; smaller companies generally take longer to develop a patent fully and then file.¹⁶⁰ Therefore, by not being able to take advantage of the system, smaller companies may be more critical of this aspect of the system that, in conjunction with other aspects, may be utilized to allow inequitable behavior.

C. The First-to-File System

The main criticism of the first-to-file system is that it rewards whoever wins the race to the patent office, not the first to invent.¹⁶¹ Thus, if the technology comes to the attention of a competitor through "permissible means," such as exhibiting the technology at a trade show, the competitor can get the patent on the technology if it files first.

This criticism could apply equally to all first-to-file systems. However, it does not seem to be directed against the EPO. It is possible that some in the United States believe Japanese competitors take unfair advantage of the combined first-to-invent/publication system. A spokesman for a Japanese firm has another explanation of this asymmetry, reasoning that "disputes occur because Japanese companies are highly competitive with their U.S. counterparts while Europeans have a long way to catch up."¹⁶² As with the exam request system, it may be that the real problem is not first-to-file, per se, but how some companies find ways to acquire competitors' technology and then file on it first.

In terms of validity, it is hard to criticize a system that is employed everywhere else in the world—especially when the United States is seriously considering adopting a first-to-file approach as part of the global patent harmonization process.¹⁶³ Further, the Japanese started with a U.S.-style system, only later adopting the German patent law approach.¹⁶⁴ The result was that eighty percent of cases were treated the same under first-to-file, while the significant burden on examiners to de-

158. Spero, *supra* note 67, at 65.

159. *Id.*

160. Sheridan, *supra* note 88.

161. Spero, *supra* note 67, at 66.

162. Ogihara, *supra* note 142, at 6.

163. See, e.g., AIPLA Letter, *supra* note 107, at 1-2.

164. Views, *supra* note 5, at 1033-34.

termine filing dates was eliminated.¹⁶⁵ Given the world-wide consensus and the burden on examiners, a switch back—not that it is seriously considered—could only worsen delays and hinder harmonization.

D. Laying Open

As might be expected, the criticism of laying open is that it allows competitors to examine others' innovations before substantial rights are granted, if ever.¹⁶⁶ But this is not the complete criticism. Implicitly, and at times explicitly, the criticism entails the belief that competitors will use the disclosure, together with a sufficiently long pendency period and weak pre-grant rights, to the applicant's disadvantage. Consider the following charge: "Competitors use [the pendency period] to familiarize themselves with technologies that are disclosed and then often take the inventions of others into the marketplace without bearing the R&D costs."¹⁶⁷ This implicit "criticism within a criticism" speaks, at least in part, to the use—or abuse—of the system, or deficiencies in the system.

Are there merits to these criticisms? Here, recognizing cultural differences between the United States and Japan is critical. The U.S. perspective is that patents exist to protect individuals,¹⁶⁸ so anything that jeopardizes the individual is disfavored. Proponents of the U.S. system point to its confidentiality. Not only does this prevent competitors from learning an application's substance, it also preserves the applicant's ability to claim trade secret protection, when applicable, for the technology if the patent is denied.

On the other hand, it is the goal of the Japanese system to share technology among competitors.¹⁶⁹ While publication directly serves this function, it also serves as a warning to other companies so that they may avoid infringement and wasteful investments from duplicative efforts. With this in mind, it is instructive to note a 1966 U.S. patent system revisions study that found affording protection encouraged early public disclosure which reduced the likelihood of duplication of efforts and encouraged innovation.¹⁷⁰ To this end, it recommended that pending applications be published eighteen to twenty-four months after the earliest effective filing date.¹⁷¹ Although not ultimately adopted, it further illustrates the credibility of such a system.

165. *Id.*

166. Spero, *supra* note 67, at 66; Dunphy, *supra* note 100, at 26.

167. Spero, *supra* note 67, at 66.

168. See *supra* notes 66-68 and accompanying text.

169. See *supra* notes 69-79 and accompanying text.

170. *Views*, *supra* note 5, at 1035.

171. *Id.* at 1036.

The issue then is misuse of the system. It must therefore be viewed in the context of Japan's economic structure. Japanese companies, and the patent practice in general, specifically intend to protect only narrowly defined innovations, encouraging other companies to create closely related innovations.¹⁷² On the one hand, it is charged that Japanese companies take competitors' technology into the marketplace as their own;¹⁷³ on the other hand, there is the view that industry does not infringe generally, but rather legitimately uses the laying open process to modify, superinvent, and innovate.¹⁷⁴ So, there is an unanswerable question—any answer necessarily being culturally influenced—as to where one can draw the line between activities that are abusive and those that are simply following the Japanese understanding and goals of their own system.

This does not mean that the laying open process cannot, or is not, used at times to the disadvantage of an applicant. However, it is not laying open, per se, but the combination of narrow claim interpretation, availability of pre-grant opposition, and limited rights prior to grant, along with laying open, that invite a particular misuse of the system—particularly “patent-flooding.” These issues are dealt with in materials to follow.

At this point, the question to keep in mind is whether problems arising from early disclosure are related more to company size than nationality. In other words, for laying open to be misused effectively, the misuser must have the resources to monitor competitors' patent filings. Similarly, the victim will be more susceptible if it is unable to monitor patent filings to determine whether its technology is being taken.¹⁷⁵ Supporting this point, and exposing a possible link to company nationality as well as size, is one U.S. business executive's explanation: “As a practical matter, the Japanese patent system's push toward diffusion of knowledge ultimately leads to the concentration of technology in the hands of companies with an insider's access to the system and with the economic horsepower to manipulate it to their advantage.”¹⁷⁶

172. See *supra* notes 80-89 and accompanying text.

173. See *supra* text accompanying note 167.

174. See *supra* text accompanying note 78.

175. Spero, *supra* note 67, at 65; Hattori, *supra* note 13 (issue of costs of screening submissions raised during open discussion).

176. Spero, *supra* note 67, at 58.

Secondary size issues also arise. Are smaller companies more likely to be the victims of misuse, regardless of nationality? If so, the reason may be that smaller companies are disadvantaged in seeking resolutions of patent disputes—both in terms of bargaining power and resources for court actions.

E. Claims Limitation and Narrow Interpretation

Both the JPO and Japanese courts are criticized as being stricter in interpretation than either the USPTO or EPO.¹⁷⁷ U.S. members of the U.S. Bar/JPO Liaison Council reported that their "experience is that examiners in Japan want more exemplification and limitation of the claims to specific examples than in other countries, except perhaps the [former] U.S.S.R."¹⁷⁸ Even an attorney who does not believe the Japanese system is problematic likens the "'uniquely narrow' scope of the Japanese patents . . . to 'mining claims.'"¹⁷⁹ U.S. members of the Council explained that such strict interpretation "produce[s] less protection than is thought to be deserved and require[s] the filing of more divisional applications, which results in more work for the JPO and more work and expense for the applicants."¹⁸⁰

The heart of the criticism against narrow claim interpretation is that it leads to an ineffective scope of protection.¹⁸¹ In other words, competitors will be able to produce and patent technologies and innovations that are very similar to, and potentially functionally equivalent to, an applicant's application. "In one case, for example, American Cyanamid attempted to enforce a patent for a process using a definitive temperature range beginning at 20°C, while in Japan the accused infringer practiced the process at 17.5°C. Cyanamid lost."¹⁸² In terms of filing, "[i]f you patent a chemical formula at 3%, for example, someone else may patent one at 2% or 4%—even if the difference is functionally irrelevant."¹⁸³

177. Approved Minutes, *supra* note 53, at 5 (The JPO takes exception with this criticism, viewing it as a "rumor." It also points out that the United States provides narrower protection than itself in certain chemical cases.); Hattori, *supra* note 13; see generally Brown, *supra* note 118.

178. Approved Minutes, *supra* note 53, at 5. Applicants, particularly with chemical inventions who try to provide as many combinations as possible in their claims, face examiners requiring them to provide test results for each. Sheridan, *supra* note 88; see Dunphy, *supra* note 100, at 27. An application can be rejected for "insufficiency of disclosure" under Patent Law art. 36(3), which includes occasions when "the working examples are insufficient to support the claims" Approved Minutes, *supra* note 53, at 4.

179. Dunphy, *supra* note 100, at 27 (quoting Harold C. Wegner, Esq.). This attorney also points out, and accurately so, that such an approach equally makes "Japanese [inventors] lose there [at the JPO] all the time, too." *Id.*

180. Approved Minutes, *supra* note 53, at 5.

181. AIPLA Letter, *supra* note 107, at 3.

182. Dunphy, *supra* note 100, at 27.

183. Spero, *supra* note 67, at 66.

1. *The Problem Compounded—No Doctrine of Equivalents or Broad Pioneer Patent Protection*

The Japanese system has no effective doctrine of equivalents.¹⁸⁴ As evidenced by the American Cyanamid example, this can lead to allowing the working of a patent by slight changes that are functionally irrelevant. While the United States may take a very broad approach to this doctrine, it does not negate the fact that the comparisons in Japan are very literal.¹⁸⁵ While the absence of the doctrine would be less noticeable if the protected claim were broader, the combination of narrow claim and no such protection can render the strength of a grant of rights impotent.

The problem is further compounded by the lack of recognition of broad protection for pioneer patents.¹⁸⁶ Thus, Japanese courts fail to apply "equitably broad" protection to pioneering inventions and discoveries.¹⁸⁷ This leads to allegations of infringement going unaddressed because even a "never before seen" technology is limited strictly to what is claimed, which is kept narrow by the examination.

2. *A Japanese Perspective on the Criticism*

A Japanese perspective on the criticism raises a number of issues. The first, which has already been explored, is that there are a number of differences in the goals and culture of the Japanese patent system that lead examiners to require narrow claims, Japanese companies to file narrow claims, and courts to avoid using equitable doctrines such as equivalents and pioneer patents.¹⁸⁸ Encouraging innovation and stressing industry over individual rights both play major roles.

The JPO can also point to modernization as addressing some of these concerns. First, it has been stated that the excessively narrow claim interpretation by courts is a historical phenomenon that is improving. The explanation is that

until about 7 years ago, the translation of U.S. applications was terrible. Most technology from the U.S. was very new and there was little prior art; so, applications were allowed based solely on the diagrams they contained. If a suit was brought, the judge could not understand the specification. But, since issued patents have a presumption of va-

184. See *supra* notes 83-85 and accompanying text.

185. Sheridan, *supra* note 88. However, the Federal Circuit recently indicated an intent to treat the doctrine of equivalents as the exception and not the rule in patent infringement litigation. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). Nevertheless, the court still recognized the doctrine as valid in appropriate cases. *Id.*

186. In the United States, a patent for a "whole new" technology or process—one that pioneers—is interpreted very broadly so as to allow protection potentially beyond a strict reading of the (traditionally broad) claims. Hattori, *supra* note 13.

187. *Id.*

188. See *supra* notes 81-89 and accompanying text.

lidity, he would follow the diagrams specifically. Therefore, unless the alleged infringement was an exact copy of the drawing, it was found not infringing. Fortunately, translations have improved in the last five years, so this should be less of a problem in the future.¹⁸⁹

Second, the introduction of multiple claim practice, if allowed at the exam level,¹⁹⁰ logically should counterbalance, at least partially, narrow interpretation.¹⁹¹ This follows because several narrow claims will be equivalent to a few broad claims.¹⁹² Also, the JPO's unity-of-invention definition is broader than that of the USPTO.¹⁹³ This allows a greater range of subject matter to be claimed in a single application. A third, albeit partial, response is that even the USPTO will start to narrow the range of equivalents it finds infringing as the number of patents held valid increases.¹⁹⁴

3. *U.S. Concerns Remain*

Obviously, there is a subjective element in deciding when claims are interpreted "too narrowly," especially when domestic socio-cultural factors favor narrow versus broad protection.¹⁹⁵ Nevertheless, the criticisms of claim interpretation raise valid concerns, and point out real problems. In sum, the Japanese system fails to protect the "spirit of the invention."¹⁹⁶

This article has pointed out that the Japanese patent system seeks to share information among competitors. However, another interpretation, and one capable of existing alongside the other, is that Japan's modern-day patent law "was enacted in the post-World War II period to protect Japan's industry from being dominated by foreign companies who conduct basic research and own basic patents."¹⁹⁷ The implication is that the system must operate against any one company, of any nationality, to

189. Hattori, *supra* note 13.

190. Approved Minutes, *supra* note 53, at 5 (although multiple claims are to be refused on a claim-by-claim basis).

191. However, to the extent that Japanese companies still employ the traditional system, examiners will have a harder time adapting to this system. *Id.*

192. Of course, there is still the "problem" that for each claim added, more supporting documentation, including test results where appropriate, will have to be supplied. See *supra* notes 177-80 and accompanying text.

193. Approved Minutes, *supra* note 53, at 5.

194. Sheridan, *supra* note 88.

195. The emphasis on individual rights and broad protection in the context of patents for "major changes" must conflict with a view of group rights and narrow protection in the context of patents for incremental innovations.

196. Hattori, *supra* note 13.

197. Dunphy, *supra* note 100, at 26 (quoting Larry W. Evans, director of the patent and license division at BP America). Equitable principles existed a century ago, but were done away with when Japan was opened to the foreign influences. Hattori, *supra* note 13. One can question whether doing away with equity was a way to prevent foreigners from gaining too

prevent it from obtaining broad rights over technology, especially in the form of basic—i.e., pioneer—patents. At the same time, such a system still permits an ultimate goal of supporting industry as a whole as long as companies adapt to the many-application, small innovation ideology.¹⁹⁸

Lack of equity is another valid criticism.¹⁹⁹ First, there is the pioneer patent. Granted, to a significant degree this may be a cultural difference, because “overly broad” protection is not necessarily required. However, an invention that is the first of its kind should equitably garner enough protection to allow the patent holder to control at least the full range of uses claimed in the application.

The absence of a doctrine of equivalents, in the context of narrow claim interpretation, is a painfully significant shortcoming. One is hard pressed to understand how using a patented process at a temperature slightly different from what is claimed is not infringement.²⁰⁰ This hyper-literal interpretation defeats the basic concept of the patent—there is no protection to trade off against disclosure. Furthermore, allowing patents for slightly altered inventions and processes that do not functionally differ from earlier patents appears to contradict directly the promotion of innovation and the granting of some degree of exclusive rights in the patent in the first place. Even if such filings or grants do not happen frequently, when they do they seem to amount to legalized infringement, or at least sanctioned compulsory licensing, because the holder of the first patent is forced to enter into a cross-licensing agreement.²⁰¹

Such an approach to claims is the major component of the abusive practice known as “patent flooding.” It is precisely the ability of a competitor to gain patents for technology that is only a shade different from that already patented which allows it to surround this basic technology.²⁰² Competitors can then force applicants, at least those who do not have equal bargaining power, to deal on the competitors’ terms. In other words, later applicants can basically bar patented technology from use—

broad a grant of rights while, ultimately, not harming Japanese industry, which followed a different approach to innovation and advancement.

198. However, it also follows that domestic industry may be protected only so long as foreign industry does not collectively make use of the system in the same fashion or only for as long as other national systems do not do the same to Japanese companies.

199. Hattori, *supra* note 13.

200. Donald Spero gives an example which highlights this point. In his company’s dispute with Mitsubishi, he writes about “[Mitsubishi’s] sashimi patents, those representing only thin slices of difference from our proprietary technology. It is as though we had patented the bicycle only to have a competitor patent the bicycle with red pedals or a basket or chrome handlebars.” Spero, *supra* note 67, at 62.

201. See *infra* notes 232-49 and accompanying text.

202. *Id.*

and all without any equitable recourse to guarantee an economically feasible, protected zone within which to work the patent.

Finally, it has been suggested that reintroducing equitable principles into the patent system would directly benefit the Japanese. "Equity must be considered because other Asian countries are catching up to Japan. And, they are starting to do the same things to Japanese products [that the U.S. claims is being done to it], i.e. filing very similar patents."²⁰³

F. Pre-Grant Opposition

"The pre-grant opposition procedure is viewed as a mechanism often used to tie-up the grant of a patent and undercut obtaining effective and enforceable rights."²⁰⁴ By way of comparison, third-party actions to invalidate a patent in the United States begin only after a patent has been granted—and hence rights have been established and validity is presumed.²⁰⁵

The standard explanation for such a system, and not only in Japan, is that "[o]ppositions (as well as citation of art by the public to laid-open applications) tend to assure higher quality of the patents ultimately issued."²⁰⁶ Oppositions tend to result in fewer patents being issued; and, once issued, these patents tend to be upheld by the courts.²⁰⁷

In terms of costs, it has been opined that the Japanese could not afford the post-grant litigation system that the United States employs.²⁰⁸ The reasoning is that once the patent has "survived" opposition and been granted, it is very strong. Thus, people tend not to go to court over a patent, believing in its validity, and hence avoid litigation expenses.²⁰⁹

On the other hand, critics point to a number of problems. The first is that the process is subject to abuse; oppositions can be filed simply to delay a grant,²¹⁰ leaving the applicant with only provisional rights. This

203. Hattori, *supra* note 13.

204. AIPLA Letter, *supra* note 107, at 3.

205. A third party can seek declaratory judgment or assert an affirmative defense of patent invalidity in the courts. 35 U.S.C. § 282 (1992) (validity of granted patent presumed). Or the party can seek a reexamination, a discretionary practice in which the USPTO will consider newly-cited documentary evidence, read prior art. *Id.* § 302-7.

206. Daus, *supra* note 3, at 480; Views, *supra* note 5, at 1034 ("The purpose of the opposition system was to minimize the number of patents liable to be invalidated later, in other words, to strengthen patents by participation of the public in the examination before granting of the patent.").

207. Daus, *supra* note 3, at 480; Views, *supra* note 5, at 1034.

208. Hattori, *supra* note 13.

209. *Id.*

210. Dunphy, *supra* note 100, at 27 ("BP's director of the patent and license division, Larry Evans, says his company observed a pattern of objections to the company's applications in Japan that indicated rivals were cooperating to block the company's entry into the Japanese market.").

delay may result in the loss of the market or the obsolescence of the disclosed technology.²¹¹ The problem is compounded when multiple oppositions are filed. In those circumstances, there are no means by which to consolidate oppositions, and each must be handled individually.²¹² In comparison with a post-grant opposition system, it is not apparent that pre-grant opposition is necessarily a cheaper or more effective practice. To effectively utilize the opposition process, one must have the resources to track publication in the KOKOKU KOHO constantly.²¹³ There are costs associated with filing the opposition, including the collection of evidence and the writing of the opposition.²¹⁴ Finally, from the applicant's side, there are the costs of preparing a written reply to any and all oppositions,²¹⁵ and the applicant bears the risks of delay. In contrast, action in the United States need not be brought until it is clear that the patent will be (or has been) granted. Because the applicant is under a duty to disclose all material prior art,²¹⁶ it, rather than a patent holder whose rights may be infringed, carries the greater up-front cost. Also, where a third party opposes based on newly disclosed prior art, the discretionary reexamination procedure, which is usually granted in those circumstances,²¹⁷ avoids litigation.

Quality of patents fares equally well under the post-grant opposition system. In view of the severe consequences: striking the application, treble damages in antitrust litigation, denial of reissue, nonenforceability of patent, etc., the duty of candor and disclosure puts a heavy duty on patent applicants. This is probably *as strong a factor for high quality patents as are opposition procedures* of other nations.²¹⁸

As with previously addressed criticisms, the real problem seems to be not so much oppositions, per se, but the abuse of the opposition process in a bad faith effort to delay granting a patent or to support patent flooding. Therefore, perhaps the criticism is better directed at a lack of means to adequately address, and redress, such abuses and misuse of the process.

In the end, both patent offices have equally credible support for the timing of opposition chosen for their respective systems. Therefore, it is not possible to say one approach is more valid than the other. However,

211. Spero, *supra* note 67, at 66.

212. Approved Minutes, *supra* note 53, at 7; *see also* Dunphy, *supra* note 100.

213. Here again is an element of the process that discriminates in favor of economically larger companies, rather than the nationality of the company (except to the degree that it is less costly for a Japanese company to monitor these publications).

214. Patent Law, *supra* note 1, at arts. 55, 56.

215. *Id.* art. 57.

216. *See* 35 U.S.C. § 115 (1992) (oath to this effect, a breach of which is a fraud on the Patent Office); 37 C.F.R. § 1.55(a) (1991) (requires duty of candor and good faith).

217. Daus, *supra* note 3, at 481.

218. *Id.* at 482 (emphasis added).

to the extent oppositions are a problem, it appears that their use is decreasing. Along with a global decline in the use of opposition, the JPO notes a "decline in percentage of oppositions filed from 13.4% to 8%," using 1985 figures, although "the average number of oppositions filed per opposed application remained constant, 1.46-1.84" ²¹⁹

V

Deficiencies in Enforcement

Deficiencies in enforcement can be found at a number of levels, concerning a number of issues. Rather than specific criticisms, these deficiencies tend to be lumped together in a general dissatisfaction with recourse to judicial action in the Japanese legal system. In fact, litigation over patents is rare in Japan. ²²⁰

Perhaps the biggest criticism is directed against the court process and the limited availability of legal redress. Of course, the validity of this criticism necessarily goes to the structure of the Japanese legal system as a whole. Nevertheless, real limitations to using judicial methods of enforcement are evident—which, in fact, may well be purposely built into the system. ²²¹

The first major problems are time and cost. In Japan, it often takes up to six years for a patent case to be resolved, requiring much activity along the way. ²²² "[T]he trial court rarely meets for your case—approximately once a month—and no discovery is permitted. Judicial proceedings are slow, costly and generally available only after the infringer has an opportunity to invalidate the patent in an exhaustive patent office invalidation proceeding." ²²³

The second major problem arises with respect to trade secrets. "There are no provisions for protective orders, so if a trade secret is in-

219. *Id.* at 481.

220. It has long been a belief that the Japanese are averse to litigation. Yasuhei Taniguchi, Japanese legal scholar and Visiting Professor of Law at Stanford Univ., Presentation to the Japanese Legal Systems class, Stanford Law School (Mar. 13, 1991). See, e.g., Takeyoshi Kawashima, *Dispute Resolution in Contemporary Japan*, in *LAW IN JAPAN: THE LEGAL ORDER IN CHANGING SOCIETY* 41 (1963). However, another explanation is that the legal system discourages litigation by limiting the number of legal practitioners and through high costs. See John O. Haley, *The Myth of the Reluctant Litigant*, 4 *J. JAPANESE STUD.* 359 (1978); Taniguchi, *supra*. When it appears that Japanese companies actively seek to avoid litigation, choosing instead, say, to negotiate, it is not simply an aversion to litigation, but very likely involves barriers to access to the courts. However, there is also the historical development of the Japanese legal system which stressed such alternative dispute resolution. *Id.* (Feb. 26 and 27, 1991).

221. See Daus, *supra* note 3; Taniguchi, *supra* note 220 (Mar. 13 and 20, 1991).

222. Silverman, *supra* note 98. In comparison, while the trial process in Europe is also slow, it yields "actual judgments" that allow for some degree of predictability. *Id.*

223. Spero, *supra* note 67, at 66.

volved, the suit will expose it.”²²⁴ This may operate as an insurmountable barrier, precluding litigation as an option.

Even if plaintiffs do litigate, they are not guaranteed a remedy. Injunctive relief is almost nonexistent,²²⁵ and “no one has heard of” a preliminary injunction being available.²²⁶ And damages? Again, it is questionable whether these will be awarded.²²⁷

The task of pursuing judicial redress is made even more difficult by the absence of equitable doctrines for pioneer patents and infringement by equivalents. Through narrow interpretations, and a preference for narrow claims, there is much latitude for workings which are very, perhaps even functionally, similar to the patented subject matter, but are nevertheless deemed non-infringing.²²⁸

Finally, given the difficulty achieving redress under operation of full patent rights, one can only surmise the added difficulty when the rights are only conditional. For example, against an unauthorized working of an invention that has been laid open, there is only a provisional right to compensation.²²⁹ In addition, the provisional exclusive right that arises upon publication for opposition presents the applicant with a dilemma. First, the applicant incurs costs from prosecuting an unauthorized use, without guarantee of redress. Second, should the application be abandoned, withdrawn or invalidated after so exercising the right, the applicant must “indemnify any damage caused to another party by the exercise of that right.”²³⁰

The validity of this criticism cannot be determined. This criticism goes beyond the patent system, addressing the entire Japanese legal structure, including built-in barriers to litigation. Nonetheless, nothing weakens the credibility of the criticisms alleged. At least from the perspective of the U.S. litigant—and perhaps of anyone who finds a competitor working a functionally equivalent invention or process in Japan—the enforcement mechanisms fall short of fully, and adequately, supporting the exclusive rights granted by a patent.

To the degree that this is so, it can help explain why critics have been so vocal in other areas of the patent system. The basis of a patent system is a trade-off of disclosure for exclusive rights. The less meaning-

224. Silverman, *supra* note 98.

225. Spero, *supra* note 67, at 66.

226. Silverman, *supra* note 98.

227. *Id.*

228. See *supra* notes 199-203 and accompanying text.

229. *Views*, *supra* note 5, at 1028.

230. *Id.* at 1031.

ful the grant of rights, the more likely that applicants will resent disclosure, and see themselves on the losing end of the bargain.²³¹

VI

Issues Concerning Patents as Competitive Tools

This section addresses two main issues: patent flooding and cross-licensing. The former is not an aspect of the system, per se, but is a particular use of the system that is, by definition, abusive. The patent system is directly criticized to the extent that it encourages and permits, or at least takes no action against, this activity. The latter issue is not addressed in terms of a criticism, but rather in terms of potential pitfalls and suggested strategies. However, it, too, is criticized to the extent that it appears to be the end goal of patent flooding.

A. Patent Flooding

Succinctly, patent flooding is "the filing of numerous applications by Japanese companies for insignificant variations surrounding laid-open applications . . . which prevents the original inventor from working his invention as reduced to practice without cross-licensing."²³² The purpose of "[t]his tactic of filing scores of unworthy patents surrounding the core technology of another inventor" is to gain access to that core technology by forcing the cross-licensing agreement upon it.²³³ As suggested by this description and previous material, this misuse requires the interaction of a number of aspects of the Japanese patent system.²³⁴ Perhaps more clearly than in any other area, the biggest risk factor for a potential victim is small size.²³⁵ An example elaborates.²³⁶

1. *The Example*—Fusion Technology v. Mitsubishi

U.S.-based Fusion Technology entered the Japanese market in 1975 selling "high-intensity ultraviolet lamps powered by 500 to 6,000 watts of microwave energy." Previous experimentation had been done only with

231. Of course, if one supports the goal of sharing information with industry, one will be less resentful of disclosure, despite the grant of limited rights. However, this might change if more foreign applicants start to use the same system to the ultimate disadvantage of domestic industry. See *supra* text accompanying note 203.

232. Sekine & Kakinuki, *supra* note 12, at 237-38.

233. Spero, *supra* note 67, at 60.

234. "We have patents filed and issued around the world, including the United States, Japan, and Europe. But only in Japan have we experienced the kind of targeting and piracy that [is involved in the Fusion Technology example]." *Id.*

235. Silverman, *supra* note 98.

236. See generally Spero, *supra* note 67. See also Dunphy, *supra* note 100; Ogihara, *supra* note 142; Bruce Stokes, *The Culture of Patents*, 20 NAT'L J. 1350 (1988).

low power of one to five watts.²³⁷ Fusion Technology had received patents on their inventions despite formal opposition by Mitsubishi.²³⁸ Fusion says their product was targeted by Mitsubishi: in 1977, Mitsubishi bought one of their lamps, had an engineering team reverse-engineer it, and then began to flood the JPO with applications.²³⁹

Given their small size, and inexperience with the system,²⁴⁰ Fusion did not monitor patent filings at that time. They did not realize that by the end of 1977, Mitsubishi "had filed the first of nearly 300 patent applications copying and surrounding [Fusion's] high-intensity microwave-lamp technology."²⁴¹ It was not until 1983 that the company realized what was happening. As the president and CEO of Fusion reads it: "Mitsubishi could reasonably expect that a company as small as Fusion would be so anxious to acquire a license to Mitsubishi's Japanese patents that we would willingly exchange a license to our own core technology. It was wrong."²⁴² Fusion felt that the Mitsubishi applications fell into three categories: the first copied elements directly from the Fusion lamp system; the second contained filings of materials already in the public domain; and the third contained "*sashimi* patents" that were only thinly different from Fusion's patented technology.²⁴³ The company was aware that "[t]racking and opposing hundreds of these Japanese filings pose[d] a significant burden."²⁴⁴ However, if they issued, Fusion would not be able to sell its lamp.

A main Mitsubishi defense—other than saying the JPO would decide—is that Fusion used a "line light source" (tubular in shape) and that its [Mitsubishi's] lamp is a "point light source" (spherical in shape). . . . However, Fusion's invention and basic patents did not depend on the shape of the bulb; but rather on the method of generating high-intensity ultraviolet light. Although Mitsubishi asserts that

237. Spero, *supra* note 67, at 59.

238. *Id.* at 60.

239. *Id.* Mitsubishi admits buying and examining the lamp, stating that doing such is a common corporate patent tactic, but said the JPO would decide if they copied the technology. Ogiwara, *supra* note 142, at 6. As might be expected, U.S. interests doubt the ability of the JPO to be objective "in international disputes because of close tie[s] between Japan's government and private sector." *Id.*

240. For example, Fusion, like many other U.S. companies, simply sent their patents to Japan to be translated and filed by a clerk. Spero, *supra* note 67, at 60.

241. *Id.*

242. *Id.* This quote highlights the importance of size and bargaining power. Clearly, smaller companies are more likely to be victims.

It is interesting that, in discussions between Mitsubishi and Fusion, "one Mitsubishi executive pounded his fist and said, 'Mr. Spero, it's not right! You have a dominant market share in Japan. It's not fair. We're a small company too.' 'That's ridiculous,' [Fusion's president and CEO] said. 'You're a \$20 billion company.' 'In the lamp business we're small,' he replied." Spero, *supra* note 67, at 67.

243. *Id.* at 60-62.

244. *Id.* at 62.

the shape of its lamp is a critical distinction, a great many of its filings affect equally all high-intensity microwave lamps—regardless of shape
²⁴⁵

During this dispute, Mitsubishi had been pushing for a cross-licensing agreement that would have given it undisputed access to Fusion's technology. For example, Fusion first suggested an agreement whereby Fusion would not oppose the filings, and Mitsubishi would not assert them, once awarded, against Fusion. After six months of negotiations, in the words of Fusion's CEO, "Mitsubishi hit us with the coercive cross-licensing demand: Fusion would pay Mitsubishi a royalty for the privilege of using 'its' patents in Japan. Mitsubishi would get a royalty-free, worldwide cross license to all Fusion's technology."²⁴⁶ As the issue became more political²⁴⁷ and new deals were suggested, the cross-licensing aspect remained. Not until January 1989 was that aspect dropped, only to be replaced with a demand for "a 3% running royalty on all [Fusion's] sales in Japan—in effect, a tax on [Fusion's] business."²⁴⁸ Fusion continues to oppose the filings. So far, three patents have issued to Mitsubishi, which has threatened, but failed, to take action.²⁴⁹

2. Systemic Support

Most aspects of patent flooding have been criticized individually. These include delays in granting rights, laying open applications, claims limitations, pre-grant oppositions, and weak enforcement.²⁵⁰ As should now seem obvious, these aspects combine to give competitors access to technology before the applicant has exclusive rights, as well as the chance for the patent to be delayed through oppositions—perhaps preemptorily. They require potential victims to follow filings to ensure they are not being flooded and to permit and uphold patents for technology that differs minimally, even inconsequentially, from that of a competitor.

An additional charge is that the lax requirements of the JPO with relation to disclosing prior art facilitate patent flooding.²⁵¹ "[T]heoretically Japan has no American-type doctrine of 'patent fraud'," relying more on oppositions than the duty of candor to prevent examiners being misled.²⁵² Although there is a requirement of disclosure, there is no penalty for failure to do so.²⁵³ Therefore, for a company intent on

245. *Id.*

246. *Id.* at 64.

247. *See generally id.*; Dunphy, *supra* note 100; Ogihara, *supra* note 142.

248. Spero, *supra* note 67, at 67.

249. *Id.*

250. *See supra* notes 121-27, 169-74, 177-219, and accompanying text.

251. Spero, *supra* note 67, at 66.

252. Daus, *supra* note 3, at 481.

253. *See* Ogihara, *supra* note 142.

flooding, there is little incentive to disclose the patents of targeted technology.

It is hard to argue with the validity of these charges. This practice goes beyond patenting "related" technology, allowing the purposeful forcing of a patent holder to concede technology or revenues. It cannot simply be that the Japanese are more competitive than those utilizing the EPO, because this practice is not reported in the American patent systems, either.²⁵⁴ Basically, it defeats the purpose of the patent system, at least from the point of view of a non-Japanese company.²⁵⁵ Why allow such basically contradictory practices? Because even patented core technology can be blocked from its claimed use—specifically what the patent system said the applicant had the exclusive right to do when the patent issued—because of a later-issuing patent.²⁵⁶ And perhaps that is at the crux of the matter—it seems to defy logic that "second-comer" patents can issue that are close enough to a "first" patent to prevent its claimed use, but not close enough to infringe that claim.

Unfortunately, flooding seems to favor the goals of supporting Japanese industry, as long as it is not practiced against large, Japanese companies (this may be an impossibility given their bargaining power).²⁵⁷ First, flooding favors large companies which have the resources necessary to track filings, reverse engineer, and coerce a cross-license.²⁵⁸ Second, flooding allows Japanese industry to acquire new, even basic, technologies and foreign revenues, through licensing fees, without incurring research and development costs. Third, once a Japanese competitor can directly compete with a foreign company within the Japanese market, the former is likely to end up on top.²⁵⁹

All told, "[s]o common is [cross-licensing an] outcome that former U.S. Patent Commissioner Donald J. Quigg has said, '[The Japanese] indirectly have a massive mandatory licensing system.'"²⁶⁰

254. See *supra* note 236 and accompanying text.

255. See *infra* notes 258-59 and accompanying text.

256. See generally Brown, *supra* note 118.

257. If flooding is practiced against any foreign applicant, or even a small Japanese applicant, Japanese industry as a whole benefits because large corporations with adequate resources can acquire the technology, exploit it, and begin the innovation process anew. It is more likely that large foreign corporations will not be targets, given equal bargaining power—if not within the United States, then in other markets important to Japanese industry.

258. See *supra* text accompanying note 244; see also *supra* note 213.

259. See *infra* text accompanying note 265.

260. Spero, *supra* note 67, at 66.

B. Cross-Licensing

The discussion of patent flooding illustrates how cross-licensing can be employed coercively. "Using the patent system to extract technologies from true innovators typically has a good payoff. Most targeted companies, whether Japanese or foreign, see no choice but to cross-license, giving the predator the right to practice the misappropriated invention."²⁶¹

However, there are valid reasons to seek a cross-license agreement. In wanting both to give and receive licenses, Japanese companies "want to feel comfortable that they won't face someone popping up at some time after doing business to say they're infringing."²⁶² And, as a matter of course, cross-licensing is a common, even preferred, way for Japanese competitors to deal with patents.²⁶³

Thus, U.S. holders of Japanese patents must plan their licensing strategy carefully. Indiscriminate licensing can be short-sighted and costly; those to whom you license can eventually come back and try to recoup their licensing fees by licensing their technology to you.²⁶⁴ Technology which is truly proprietary should not be licensed. As one executive has stated: "Don't license [to] your competitor in Japan unless you plan to exit the Japanese market. The record shows that most U.S. companies do not fare well in the Japanese market once they are in direct competition with Japanese suppliers selling equivalent products."²⁶⁵ However, for technology which is not so critical to your business, cross-licensing can be beneficial, especially where you can tap into needed research and development of other firms.²⁶⁶

VII Conclusion

There can be no doubt that the cultural differences between the U.S. and Japanese patent systems are a crucial factor in the majority of criticisms. However, they are by no means the only, or necessarily determinative, factors. In fact, a number of aspects of the Japanese system are shared with other national patent practices, or are a necessity whether or not shared. With respect to these aspects, some of the criticisms appear more self-serving than constructive. Also, several of the most critical complaints do not address aspects of the Japanese patent system, but

261. *Id.*

262. Silverman, *supra* note 98.

263. *See supra* notes 98-99 and accompanying text.

264. Silverman, *supra* note 98.

265. Spero, *supra* note 67, at 65.

266. Silverman, *supra* note 98.

rather how companies have learned to use it to inequitable and abusive ends. However, there are indeed notable weaknesses within the Japanese patent practice that are validly criticized by the United States.

This article has reached a number of conclusions about specific criticisms. First is cost. The biggest cost of the practice is not systemic; rather, it has come from the failure of U.S. applicants to appreciate the complexity of the Japanese language and the need for careful, timely translations. Second is time delay and examiner overload. This is clearly a problem that has arisen through several factors. The JPO has recognized this, and has taken comprehensive measures to bring the application pendency, once examination is requested, closer to EPO and USPTO practices. As for the request system, it cannot fairly be called a systemic problem. Rather, it is more an issue of smaller companies learning to effectively utilize this procedure more than the practice followed by the USPTO.

Next is the laying open system. This goes to the heart of the cultural differences between our two systems, promoting industrial sharing as opposed to individual protection and confidentiality. One is therefore hard pressed to determine legitimately whether this process is really a problem for foreign applicants. What does seem apparent is that problems charged against the KOKAI TOKKYO KOHO stem more from the misuse of the disclosed information in conjunction with other parts of the system than from the disclosure itself.

Fourth is claim limitations and interpretation. There are cultural aims in approaching claims in this way. Nevertheless, the United States has valid criticisms. The lack of equity in not protecting the patentee against functional equivalents or allowing broader rights for pioneer patents is detrimental to fundamental goals of granting the patentee some degree of workable exclusive rights. In addition, this failure is the primary force behind patent flooding.

Fifth, with respect to the pre-grant opposition, this approach appears neither better nor worse than the USPTO approach. Therefore, it would appear little more than ethnocentric to request that only U.S.-style, post-grant oppositions be allowed, especially in light of the global decrease in pre-grant oppositions.

The sixth conclusion concerns the deficiencies in enforcement mechanisms. To a large degree, the criticisms in this area necessarily address the Japanese legal system as a whole. Issues such as general access to courts and lack of discovery clearly encompass more than the patent realm. Determining the validity of these criticisms, if even possible, is beyond the scope of this article. Nevertheless, the lack of redress and judicial remedies, as applies to patents, can be considered a real, pressing

problem. Unfortunately, solutions likely lie beyond the patent system itself.

Finally, with respect to the use of patents as a competitive tool, simple cross-licensing is an excellent way to extract value from patents. This calls for careful planning by the U.S. concern. However, there is the misuse of the system known as patent flooding. This is an abuse, pure and simple. Abusing their size, the weaknesses within the system, and the cultural imperative of industrial advancement, certain large companies are able to extort technologies from smaller companies. Such activity is clearly and absolutely diametrically opposed to the patent system. No matter how narrowly claims are interpreted in a particular system, patent flooding allows a later applicant to block any working of patented technology—even those uses claimed and granted in the original application.